Paper No. 37

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARC E. RICHELSOPH

Appeal No. 2000-0198
Application No. 08/400,178

ON BRIEF

Before CALVERT, ABRAMS and McQUADE, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 21-30. At that point, claims 1-19 had been canceled and claim 20 had been allowed. After the final rejection, the appellant canceled claims 24, 25, 27 and 28 (Paper No. 27), leaving claims 21-23, 26, 29 and 30 on appeal. In the Answer (Paper No. 31), the examiner indicated that claims 21, 26, 29 and 30 also were allowable, leaving claims 22 and 23 before us on appeal.

We REVERSE.

BACKGROUND

The appellant's invention relates to modular trial instrumentation for determining the dimensions of a replacement prosthesis. The claims on appeal have been reproduced in an appendix to the Brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Demane et al. (Demane)	4,995,883	Feb. 26, 1991
Schelhas et al. (Schelhas)	5,032,130	Jul. 16, 1991
Kenna	5,108,437	Apr. 28, 1992

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kenna in view of Demane and Schelhas.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the Answer (Paper No. 31) and the final rejection (Paper No. 25) for the examiner's complete reasoning in support of the rejection, and to the Brief (Paper No. 28) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the

respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

The appellant's invention is directed to a system for allowing trials to determine the dimensions of a replacement prosthesis to be surgically implanted in the medullary canal of a bone of an individual patient during an operation and for producing a custom trial prosthesis to articulate with a coacting articulation surface of a joint during trial reduction of the joint. As manifested in independent claim 22, the invention comprises a plurality of trial head components of different dimensions, a plurality of trial stem components of different dimensions, and a quick release interlock means for joining a selected trial head component to a selected trial stem component to produce a custom prosthesis. It is the examiner's view that all of the subject matter rejected in this claim is disclosed in Kenna, except for providing multiple components in different sizes and release interlock means that operate in the longitudinal direction, both of which are required by the claim. However, the examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the Kenna system by providing multiple sizes of components in order to implant the devices in patients of different sizes, in view of the teachings of Demane, and to utilize a longitudinally operating release interlock means, in view of Schelhas.

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller,

642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Claim 22 requires that the modular trial instrumentation comprise, inter alia,

> quick release interlock means for joining a selected trial head component to a selected trial stem component . . . with the distal end of the selected trial stem component . . . received in the medullary canal of the bone . . . [and] allowing the selected trial head component to be separated from the selected trial stem component while the distal end of the selected stem trial component remains implanted in the medullary canal of the bone and by allowing another trial head component to be connected to the selected trial stem component while the distal end of the selected trial stem component remains implanted in the medullary canal of the bone; the quick release interlock means including means for allowing the selected trial head component to be disconnected from the selected trial stem component in a direction along the longitudinal axis of the selected trial stem component.

Kenna is directed to a modular prosthesis device upon which a ball is mounted. The examiner apparently considers main portion 22 to be the trial head component and stems

16, 18 and 20 to be the trial stem components. Main portion 22, upon which the ball is mounted in a manner not explained, terminates at its distal end in a stem portion 16 which extends into the medullary canal. Depending upon the length of stem required, additional stem portions 18 and 20 may be added. As shown in Figure 1, virtually all of Kenna's inventive structure is installed in the medullary canal. The stem components are connected together by interlocking keys and keyways that operate perpendicularly to the longitudinal axis of the stem(s) and which, once installed, are locked together by longitudinally movable spacers 24, 26 and 28. Kenna instructs the user to select appropriately sized components (column 1, lines 23-26). However, even if the Kenna fastening system were to be considered to be a "quick release interlock means," it is quite clear from Figure 1 that it is not so constructed or so located with regard to the medullary canal as to allow the components to be separated or connected to one another while the device "remains implanted in the medullary canal," nor does it operate in such a manner as to allow connection and disconnection "in a direction along the longitudinal axis of the selected trial stem component," both as required by claim 22.

The system disclosed in Demane is quite similar to that of Kenna, except that the patent illustrates a plurality of trial head components rather than merely explaining this feature. As was the case with Kenna, the prosthesis comprises a main portion that terminates at its distal end in a stem portion 19, and it can further be equipped with

additional stem portions which are attached by means of an elongated screw. The prosthesis is to be "custom fitted to a particular patient . . . prior to surgical insertion" (column 3, lines 31 and 32), which indicates that it is not intended to be modified after it is implanted in the medullary canal. Considered in the most charitable light, it is our view that the screw attachment means cannot be considered to be a "quick release interlock means" in the manner established in the appellant's specification, even though it allows separation and connection in a direction along the longitudinal axis of the stem components.

Installation and separation along the longitudinal axis also is a feature of the Schelhas device. In this arrangement, the components are attached together prior to implanting by means of a sleeve connection that is neither quick-release nor capable of being operated while the stem portions are installed in the medullary canal.

The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In the present case, we fail to perceive any teaching, suggestion or incentive in the applied references which would have led one of ordinary skill in the art to modify the Kenna system in the manner proposed by the examiner, for none of the references teach that the trial head component and the stem component can be separated while the stem component remains

implanted in the medullary canal, and none disclose a quick release interlock means that allows the components to be disconnected along the longitudinal axis of the stem component.

The appellant additionally has argued that the claim recites the quick release interlock in "means plus function" format, and that the comparable elements in the three references fail to meet the terms of the claims when evaluated in the context of the sixth paragraph of 35 U.S.C. § 112. We agree.

In order to meet a means-plus-function limitation, the prior art must perform the identical function recited in the means limitation, and perform that function using the structure disclosed in the appellant's specification or an equivalent structure. See Valmont Indus. Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1042, 25 USPQ2d 1451, 1454 (Fed. Cir 1993). As to the first requirement, even if one were to consider that the release interlock means disclosed in the applied references accomplishes the same function as the claimed means, it does not do it using the same structure disclosed in the appellant's specification. In this regard, the appellant's means for providing quick release between components comprises a set of balls disposed in an annular opening in the head component which interact with an annular groove in the stem component. A spring-loaded sleeve cooperates with the balls to allow them to be locked in the annular groove in response to movement along the longitudinal axis of the stem component, as shown in

Figures 4 and 6 and explained on pages 7 and 8 of the specification. Clearly, none of the three references discloses an identical release structure.

While there is no litmus test for an "equivalent" that can be applied with absolute certainty and predictability, there are several indicia that are sufficient to support a conclusion of equivalency or non-equivalency. These include:

> (1) Whether the prior art elements perform the function specified in the claim in substantially the same way, and produce substantially the same results as the corresponding structure disclosed in the specification. Odetics Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1267, 51 USPQ2d 1225, 1229-30 (Fed. Cir. 1999).
>
> (2) Whether a person of ordinary skill in the art would have recognized the interchangeability of the elements shown in the prior art for the corresponding elements disclosed in the specification. Al-Site Corp. v. VSI International Inc., 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999).
>
> (3) Whether the prior art elements are the structural equivalents of the corresponding elements disclosed in the specification. In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).
>
> (4) Whether there are insubstantial differences between the prior art elements and the corresponding elements disclosed in the specification. IMS Technology, Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138-39 (Fed. Cir. 2000).

As a result of our review, we have determined that there is nothing in the record which would support answering any of the above questions in the affirmative. This being the case, we conclude that the prior art structure does not qualify as being an equivalent under

35 U.S.C. § 112, sixth paragraph, of the structure disclosed by the appellant in the specification.

For the reasons explained above, we find that the combined teachings of Kenna, Demane and Schelhas fail to establish a prima facie case of obviousness with regard to the subject matter recited in independent claim 22 and, it follows, in dependent claim 23. We will not sustain the rejection.

SUMMARY

The rejection is not sustained.

The decision of the examiner is reversed.

REVERSED

IAN A. CALVERT Administrative Patent Judge	)
NEAL E. ABRAMS Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
JOHN P. McQUADE Administrative Patent Judge	)

NEA:lbg

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APPEAL NO. 2000-1465 - JUDGE ABRAMS
APPLICATION NO. 09/037,485

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DECISION: **REVERSED**

Prepared By:

DRAFT TYPED: 13 Sep 02

FINAL TYPED: